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HISTORY OF THE WAR



THE KING OF
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PRICE
NET 7^d.

Published Weekly

PART
3

CHAPTER V.

THE FRENCH ARMY.

THE FRENCH ARMY AFTER WATERLOO—CAUSES THAT CONTRIBUTED TO ITS DECAY—SOCIAL—LEGISLATIVE—POLITICAL—MILITARY—THE REGENERATION—LAWS OF 1872 AND 1889—THE LOI DE DEUX ANS 1905—LAW OF 1913—FRANCE'S LAST CARD—NUMBERS AND CATEGORIES OF FRENCH ARMY AT OUTBREAK OF WAR—DISTRIBUTION IN TIME OF PEACE—MOBILIZATION—EMPLOYMENT OF RESERVE FORMATIONS—WAR ORGANIZATION OF FRENCH ARMY—TRAINING—THE NEW SCHOOL—MINOR TACTICS—INFANTRY—ARTILLERY—CAVALRY—THE OFFICERS—STAFF—LITERATURE—INVENTION—THE HIGHER COMMAND—DECREES OF 1911—CHARACTER OF THE FRENCH GOVERNMENT—PROGNOSTICATIONS UNJUSTIFIED—FRENCH UNITY—GENERAL PLAN OF CAMPAIGN—THE DEFENSIVE PHASE—DIFFICULTIES OF MODERN STRATEGIC DEFENSIVE—FRONT OF GERMAN CONCENTRATION AND LINES OF ATTACK—LORRAINE AND BELGIUM.

“**W**HEN the successes and failures of the French Republic during the past five and thirty years are placed on record by a competent historian, not the least merit which will justly be claimed for the Republican regime will be that it restored the military power of France and established a sense of security unknown to any previous generation, or any former rule.” So wrote *The Times* Military Correspondent in March, 1906, a year after the “Loi de deux ans” had registered the final triumph of the principle of national service. By way of illustration of the justice of this judgment we propose to recall the general causes which led to the failure in 1870, and then to enumerate rapidly the principal phases through which the Army had passed from that fatal year down to the moment when it again entered the field.

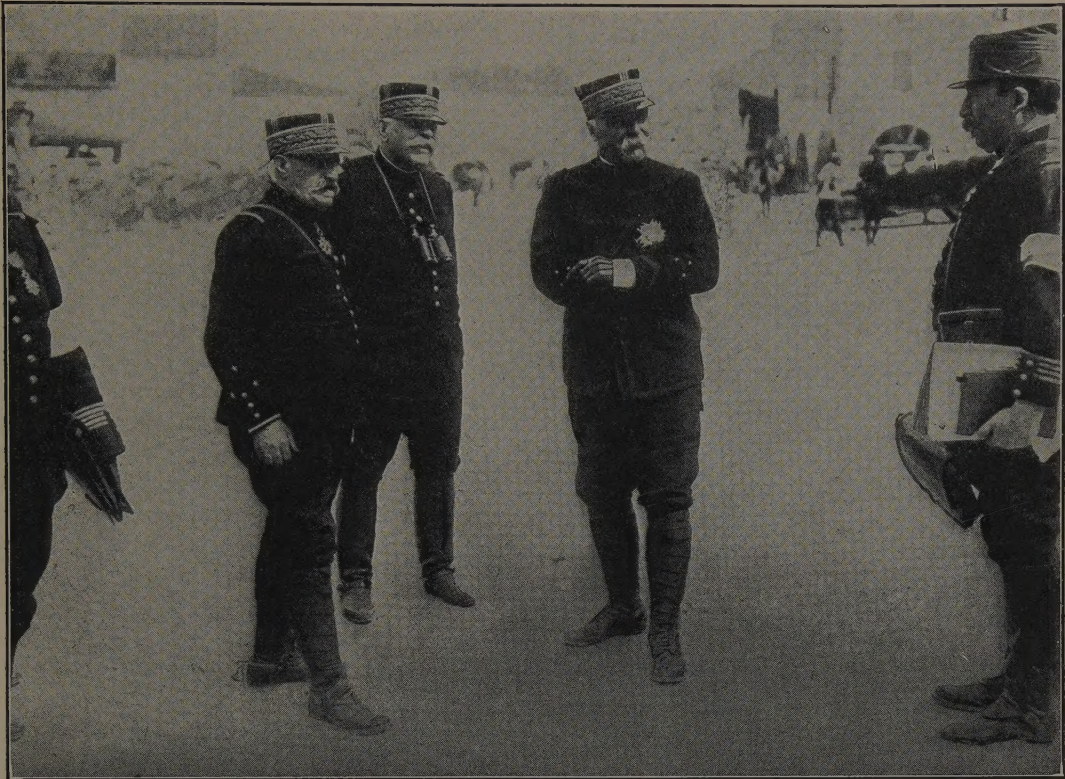
The catastrophe of 1870 is attributable not so much to the merely technical inferiority of the French armies and their generals, as to causes which had been operative during the whole of the half century which followed Waterloo, to cankers which had eaten deeply into the life and had perverted the vision of the nation itself. Napoleon I. left many legacies to France—some good, some bad; but none more ruinous than that loathing of the idea of national service which the long and

appalling orgy of his wars had implanted in the French mind. The splendid energy of 1793 was dead; the population was physically and morally exhausted; the ruthless spendthrift, whose superhuman powers of will and intellect had alone made his system possible, was gone. The result was an inevitable and violent reaction, which his weak and nerveless successors were powerless to control. Whereas to Prussia military service appeared as the instrument which had helped to restore her independence and her national existence, for France it was associated with unbridled and wasteful aggression indulged at the cost of unceasing and universal misery and ending in gigantic disasters.

Nor was it this feeling alone that was responsible for the collapse of 1870. The tendencies of the time were largely accountable. Men saw in the alleviation of the burden of military service the logical consequence of the prevailing political and social dogmas. The pacifist preached the brotherhood of man, and saw in the railway, not a fresh and powerful instrument in the hands of the general, but a new avenue of intercourse between the nations. Economists preached the wastefulness of war and the advantages of material prosperity. “Get rich,” was the advice of one of the most famous of French



GENERAL JOFFRE.



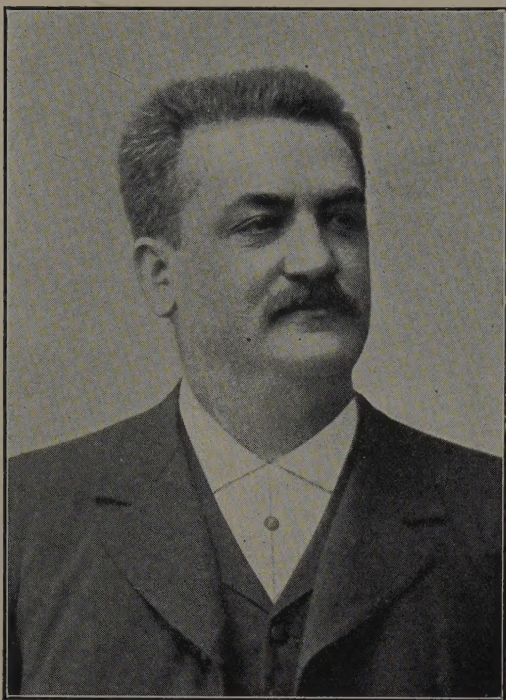
GENERALS JOFFRE, CASTELNAU (Chief of Staff), and PAU.

statesmen. Politicians harped on the necessity of retrenchment. Demagogues protested against the sacrifice of the people to the ambitions of princes. The individual was exalted at the expense of the State. Luxury and indifference grew apace, and with these grew selfishness. The consequence was that when at last France found herself at handgrips with a civilization in many ways less generous and less enlightened but of harder fibre than her own, she was morally and nationally, as well as technically, unprepared.

It is hardly to be wondered at that the French soldier did not take himself very seriously in such an atmosphere; a high standard of efficiency is scarcely possible for an army when the nation it is intended to defend is disposed to regard it as a relic of barbarism. The French Army lived on its past; its victories in the Crimea and in Italy, so far from teaching it the necessity of studying modern conditions, had only confirmed its belief in its own invincibility. The more serious-minded of its officers were ridiculed as "officer-professors," the rest were thoroughly well satisfied and generally lazy. Worst of all, it had for a long time ceased to be a really national body. The rage for retrenchment and the hatred of personal service had resulted in a series of measures which had gradually deprived it of its best

elements and had tended to degrade the military profession in the eyes of the people.

After the fall of Napoleon the system had been, in theory at least, voluntary. The hated word "conscription" was banned; but when volunteering failed to produce the requisite number of men the Government was allowed to complete the necessary annual contingent by men chosen by lot, and denominated *appelés*. The supply of volunteers was so small that the *appelés* soon came to constitute by far the larger portion of the recruits; the system in fact developed into a sort of limited conscription. This plan was thoroughly unsatisfactory. Whatever value it possessed was minimized by all sorts of limiting provisions. In the first place exemptions, often quite unjustifiable, were granted; and these, by favouring the men of a higher social scale and members of the learned professions, tended to remove from the Army the more intelligent classes of the population. In the second the period of service was rendered largely illusory by the grant of extensive furloughs to the men in the ranks, and by the creation of a second class in the annual contingent which was allowed to remain at home without training unless the Minister of War thought fit to call it up. After 1832 the fixing of the numbers of the contingent was left to the Chambers, and, as



M. ETIENNE,
a former Minister of War.

[Richard Stanley & Co.

economy was preached in and out of season, this second class was practically never trained at all. The same vicious principle reappeared in the provisions for the "tirage au sort" embodied in the law of 1872, and was not finally removed till 1889. Last and worst of all, the law of 1818 had introduced the fatal principle of *remplacement* or substitution, by which an *appelé* was allowed to find a substitute to take his place on payment of a sum of money. It was inevitable that the well-to-do classes would take advantage of this; and, as a result, the bulk of those who could afford it evaded their national obligations. The substitutes naturally belonged to the poorer and less-educated sections of the population, some to the very lowest. *Agences de remplacement*, known as "*Marchands d'Hommes*," arose for the purpose of exploiting the increasing popularity of substitution; and the fact that in some cases the substitute was better fitted to be a soldier than the man whose place he took did not prevent the demoralization attendant on a system which fostered unpatriotic selfishness. The nation was degraded by this avoidance of its duties; the Army was degraded by the lowering of the standard of its *personnel*. As the century advanced substitution became more and more common; in the contingent of 1869 out of a

total of 75,000 men there were no less than 42,000 substitutes.

Yet another downward step was taken in 1855, when in order to lighten the "blood-tax" it was enacted that men should be allowed to re-engage, the inducement to do so being a premium paid by the person whose place the re-engaged man was to take into the Government Chest. The results were that all responsibility of the original *appelé* for his *remplaçant* ceased; that the idea of personal service, in one form or the other, was finally lost; that the Government now dealt directly with the *Agences de remplacement* and shared with them the odium attaching to their business; and that the re-engaged men who served for the sake of the money remained in the Army long after they were unfit for duty, and so prevented younger men from taking their places.

It is not necessary here to refer in detail to the well-intended but unrealized reforms of Napoleon III. Six weeks after Königgrätz he announced his intention of re-organizing the Army, and a high commission of Ministers and soldiers was constituted and sat at Compiègne. It was determined that the numbers of the Army must be increased, and the military members asked for 1,000,000 men, to be divided into the now familiar sections of field army, reserve, and territorial army. But the



M. MILLERAND,
the French Minister of War.

plan was objected to by the politicians as likely to arouse resistance in the country, especially in view of the fact that Europe was at peace and that the Exhibition of 1867 was in close prospect. The result was that the original scheme was mutilated, and what remained was still incomplete when Marshal Niel, one of the few Frenchmen of real energy and insight then in authority, died. The great feature of the plan, the organization of the Garde Mobile, which was to be a sort of second line army, was never carried out. The re-engagement system (known as "exoneration") was abolished, although its baneful effects were still felt in 1870. Lastly, the period of colour service was shortened, and the formation of a reserve was begun; but before the full benefits of this measure could be felt the war of 1870 broke out. It found the discipline of the rank and file weakened by extended furloughs; the officers lazy and lacking in authority and without the confidence of their men; the generals for the most part ignorant of the higher branches of their profession; a staff unpractised in the handling of troops and consisting either of aides-de-camp or clerks. When we add to this that the French Army was heavily outnumbered and constantly outmanœuvred, that none of its arms knew their proper work, and that the arrangements for supply and mobilization were lamentably deficient, the wonder is not that they were beaten, but that they managed to put up so gallant a fight. Whatever else the war proved, it certainly failed to demonstrate the superiority of the individual Prussian over the individual French soldier.

The fearful lesson of 1870 recalled the French nation to its senses. In July, 1872, was passed the first of the great laws which have contributed to place the defences of the country on a worthy footing. Substitution was abolished and the principle of universal compulsory service was reintroduced, the period of service with the colours being five years, followed by four in the Reserve, five in the Territorial Army, and six in the Territorial Reserve. But the application of the principle was still not absolute; the annual contingent was divided by lot into two portions, and in time of peace one of them was let off with only one year of service in the Active Army. The previous exemptions of whole classes, such as bread-winners, teachers, and so forth, were still allowed in time of peace; and conditional engagements for one year only were permitted to students and apprentices. It was hoped by this arrangement to combine

an army of veterans with a really numerous and truly National Army; indeed, in some of its features it was a realization, on a far larger scale, of the principles which had underlain the scheme of Marshal Niel. The measure was very far from commanding general approbation. Its acceptance was mainly due to Thiers, who was strongly convinced that a short-service army could never be efficient. General Trochu was in favour of a three-year system; and there was a strong minority who were wholly opposed to the idea of a National Army, and were in favour of the retention of the principle of substitution. After-developments proved the General to have been right. The law of 1872, though a great advance on its predecessors, showed grave defects. The "tirage du sort," which condemned one half of the contingent to five years service and allowed the other to escape with 12 months, was felt to be wholly inequitable; and strong objection was also taken to the "volontariat conditionnel," a provision under which any man could escape with a year's service by paying 1,500*fr.* So many could afford this sum that the numbers of the fully-trained men were seriously reduced. Both these provisions were abolished in 1889, when a three-year system was made obligatory on all, and service in the Reserve was raised to seven, in the Territorial Army to six, and in the Territorial Reserve to nine years respectively. It was anticipated that this measure would ultimately raise the total number of trained men from two to three millions.

But in the years which followed a factor, which far transcended in importance these internal arrangements, began to press more and more heavily upon France. This was the alteration of the balance of population in favour of Germany, and with it a growing disparity in the peace-effectives of the armies, and consequently in the capacity for expansion in time of war. Other things being equal, the larger the peace effectives the more numerous is the annual contingent which can be trained, and the larger become the accumulated reserves. As late as 1893 the peace effectives of France and Germany were practically equal, 453,000 to 457,000; but from 1899 onwards the equipoise was lost and in 1905 the figures were stated to be 109,000 in Germany's favour. The means of neutralizing this inferiority, which was the result of natural causes and beyond the reach of legislation, was the principal preoccupation of French statesmen and soldiers in the years preceding the Great War. The Russian Alliance, however valuable from the point of view of the general position of France



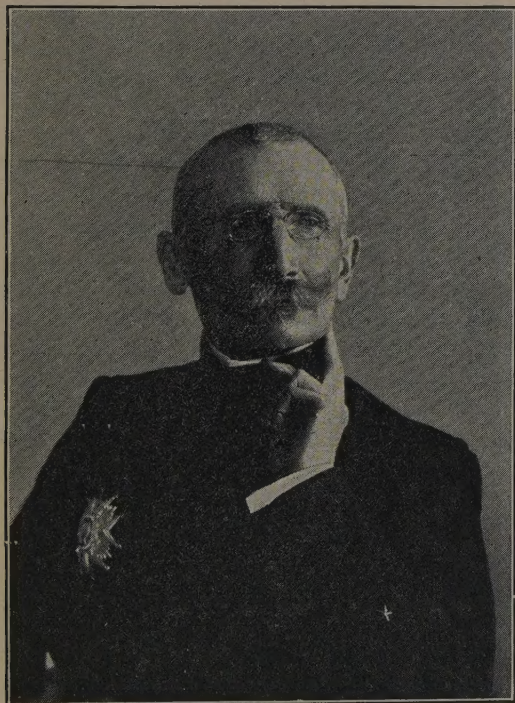
GENERAL PAU.

in Europe, was not by itself sufficient to redress the balance, because the slowness of the Russian concentration made it possible for Germany to attack France before her ally was ready. It was therefore decided to carry still further the principle of universal service and, by imposing on her people a heavier proportionate demand than Germany with her larger population found it necessary to make, to restore as far as possible the numerical equality of the two armies. This was the object of the "Loi de deux ans," which was passed in March, 1905, and came into operation a year later. It was intended to develop to its utmost limit the recruiting capacity of the nation. The term of service with the colours was reduced to two years, but service in the Army Reserve was increased to 11, to be followed by six years in the Territorial Army, and six in the Territorial Reserve. Thus every Frenchman from the age of 20 to 45 became liable for service. No exemptions, except on grounds of physical unfitness, were granted, although certain modifications of a reasonable character were introduced, and the hardships inflicted on separate families were diminished by doles. It was calculated that these arrangements would bring the peace effective up to about half

a million of men, and would in time produce an active army and a territorial army, amounting, inclusive of their reserves, to about 2,000,000 apiece. Thus did the need for self-preservation at last compel the French people to accept a system in which "military service was equal for all," and so to fulfil the principle of the law of March 4, 1791, that "the service of the Fatherland is a civic and general duty."

But these efforts, great as they were, were not long to suffice. Early in 1912 the peace effectives of the German Army had been raised; by the end of that year enormous increases had been decided on. By October, 1913, the proposals had become law. Whatever weight is to be attached—and without doubt there was much to be said from a German point of view—to the argument that Russian military expansion had rendered these additions a vital necessity to the security of the Empire, it was impossible on that ground for France to remain indifferent to them. The question was not, as in 1905, so much one of further developing her total resources of men—indeed, as has been said, her recruiting powers had already been strained to their utmost limit by the law of 1905—but of having a sufficient proportion

of trained men ready at any moment. It was anticipated that the German peace-effectives would, under the new proposals, eventually be raised to about 870,000, to which France could only oppose about 567,000; and it was of vital importance that she should find some means of securing herself against the sudden attack of superior numbers. The only way of doing this was to keep each annual contingent a longer time with the colours, an expedient necessarily entailing a larger expenditure and heavier sacrifices. The *Conseil Supérieur de la Guerre* decided unanimously in March, 1912, that the sole means of diminishing efficaciously the dangerous difference between the French and German peace strengths, of reinforcing the troops on the frontier without disorganizing those in the interior, of ensuring adequate training, and of coping with the accelerated mobilization of Germany, was to introduce three years' service with the colours strictly and rigorously for all ranks and all branches. "There is something," ran the Preamble of the Bill which embodied this proposal, "which dominates all contingencies, which triumphs over all hesitations, which governs and decides the individual and collective impulses of a great and noble democracy like ours, namely, the resolute will to live strong and free and to remain mistress of our destinies."



GENERAL PERCIN.

[Henri Manuel, Paris.]



GENERAL MICHEL.

This proposal, in spite of all kinds of opposition, was eventually carried in 1913. Every Frenchman found fit for service had in future to pass three years in the Active Army, eleven in the Reserve, and seven each in the Territorial Army and the Territorial Reserve. Thus the total liability for service was extended by three years, an arrangement necessarily carrying with it a considerable eventual increase in the reserve, and raising the peace strength to 673,000 men. Henceforth the recruit was to be incorporated at the age, not, as had hitherto been the practice, of 21 but of 20; an alteration calculated to minimize the effects of the additional year of active service on his future career. The first to come under the new law was the class of 1913. In order to obtain the number of instructors necessary for the increased size of the contingent, special bonuses were offered as an inducement to non-commissioned officers and old soldiers to re-engage; and it was anticipated that by the spring of 1914 the Army would have assimilated its recruits and would be able to mobilize satisfactorily. From a military point of view it is important to observe that under the new arrangement the infantry on the higher establishment on the frontier were raised to 200 per company, and those in the interior to 140, respectively four-fifths and rather over one-half of their war strength. The cavalry regiments were fixed at 740; the field



A MITRAILLEUSE ON THE BACK OF A MULE.

[Topical.]

batteries at 140 and 110, respectively about seven-ninths and two-thirds of their full complement. The increased annual cost was reckoned at £7,000,000, the non-recurring cost at £29,000,000. From the broad numerical point of view, as *The Times* Military Correspondent said at the time, the Law was France's last card. But the new burden had its compensations. It was calculated to give greater security in the first days of mobilization, a somewhat larger reserve and, had time been allowed, a longer period of training to her rank and file than was the case in Germany. Unfortunately its full effects were not obtained when war broke out.

At the commencement of the campaign, France possessed, inclusive of the Territorial Army and its Reserve, fully 4,000,000 of trained men. This enormous mass may be roughly divided into six different categories, each averaging close on 700,000 men. These consisted of the peace establishments of the Active Army, that portion of the Reserve (about half of the whole) required to bring the Active Army up to war strength, the remaining portion of the Reserve, the formed troops of the Territorial Army, the dépôts, and finally the surplus. The comparative values of the last five sections may roughly be gathered from the fact that the Army reservists were liable to be called up twice in 11 years for one month's

manceuvres; the men of the Territorial Army once in seven years for a fortnight's training; the Territorial reservists were subject in seven years to one muster of a day. The territorial distribution, which formed the basis of the war organization, consisted of 20 army corps districts, including one in Algeria. These districts again were divided, so far as the infantry were concerned, into districts each furnishing one regiment; but cavalry, engineers, artillery, and the chasseur or rifle battalions were recruited throughout the army corps district, and a large proportion of these troops were located not in the part of the country in which they were raised, but wherever the requirements of instruction or strategy rendered necessary. Thus the bulk of the cavalry and the chasseurs were permanently located on the eastern frontier, and the engineers were assembled for purposes of training at special centres. With these exceptions each army corps district comprised all the elements required to form an army corps; each was mobilized in its own territorial area and thence proceeded to the point allotted to it in the plan of strategic concentration.

Mobilization, of course, comprised not merely the Active Army and its Reserve, but the whole of the Territorial Army and its Reserve. Broadly speaking the scheme involved the following processes. The peace establishment of the Active Army was to be raised to war strength



PLAN OF THE MAUBEUGE FORTRESSES.

by the incorporation of a number of reservists about equal in number to the men already serving with the colours. The remaining Army reservists were to be formed into reserve units corresponding to those of the Active Army, with the result that in war time the units of the Active Army would be doubled. These Reserve units were to be officered partly by Active, partly by Reserve officers, and, it would appear, were to receive in addition a certain proportion of non-commissioned officers from the Active Army. If this Reserve Army were employed at the front the total troops in the first line would consist of an active army of 1,400,000—1,500,000 men, and of a Reserve Army of about half that number, *i.e.*, about 2,100,000 in all. The remaining 2,000,000 odd of the Territorial Army and its Reserve were to be formed into three bodies of about equal strength. First of all the Territorial Army proper was to form units corresponding with those of the Active Army and the Reserve. Secondly, dépôts were to be organized to replace casualties in the active and reserve regiments at a fixed ratio per unit, giving, it was anticipated, about three men at the dépôts for every eight in the field. The remaining men of the Territorial Reserve were available as a last resource for the replenishment of the dépôts, and for subsidiary purposes of all kinds. In this way it was possible to provide not merely for a powerful fighting line, but for its maintenance at full strength, and for the auxiliary services

in its rear; in a word, for a national organization capable of sustaining a war. Everything that forethought and infinite supervision of detail could suggest was done to make the enormous business of mobilization easy and rapid. Special care was bestowed on the boots of the infantry which were served out, not new, as was the case in Germany, but sufficiently worn to be comfortable, so as to ensure that the exceptional marching powers of the French soldier should be developed to the utmost. The cavalry regiments were maintained on practically a war footing and required comparatively little preparation. The main difficulty was in the case of the artillery and train, the mobilization of which involved the accumulation of great masses of *matériel*, and a considerable expansion and redistribution of *personnel*.

The method of employment of the French Army remained a secret; everything depending on the use that would be made of the reserve and territorial formations, or, to speak more exactly, on whether the reserve divisions would be attached to the army corps or formed, either with or without the addition of territorial troops, in separate army corps of their own. The possibility of variations of this kind, as had been recognized by the Japanese, the German, and other modern armies, could be reckoned on as one of the most effective means of producing great strategic surprises. That is to say, while every unit in the

original Jäger army corps was known to anyone who chose to study the ordinary text-books, the position, numbers and composition of troops not formed until mobilization could only be guessed at and gave opportunities for secret concentration and unexpected attack. The normal formations in the French Army closely resembled the German. The ordinary infantry regiment contained three battalions, each of 1,000 men, in four companies; the normal brigade two regiments; the normal division two brigades; the normal army corps two divisions. To these, as was the custom in the case of the Jäger battalions, might be added a battalion of chasseurs. The corps cavalry consisted of a brigade of two regiments, the divisional cavalry of one squadron per division. Only in the artillery organization was there a marked difference from the German arrangement. Whereas in the German Army Corps the artillery was equally divided between the infantry divisions, in the French the corps artillery was retained, and numbered 12 batteries, that of the divisions being nine batteries apiece. The batteries only contained four guns, a numerical inferiority which it was believed would be amply compensated by the great superiority of the gun itself, and by the special skill possessed by the French artillerymen. Inclusive of gunners the normal army corps numbered between 30,000 and 40,000 combatants and 120 guns. A reserve of light and heavy howitzers marched with the different armies. They did not form part of the artillery of the army corps, but were intended to be retained in the hand of the army commander.

The only remaining units that require mention here were the eight independent cavalry divisions and the African troops. The normal cavalry division numbered six regiments, divided into two or three brigades, in which heavy, medium, and light cavalry were fairly evenly distributed. The heavy cavalry consisted of the ever-famous Cuirassiers, the number of whose regiments was the same as in the days when they won immortal renown under the great Emperor; they still wore the beautiful helmet and cuirass and carried the long thrusting sword. The dragoon regiments, classed as medium cavalry, were armed with the lance. Attached to each division were two batteries of horse artillery, armed with the field guns, but with mounted detachments, and some galloping machine guns. The African infantry consisted of four regiments of Zouaves, each of five battalions, and four of Algerian Rifles or "Turcos," each of six; there were ten light

cavalry regiments, six of Chasseurs d'Afrique, and four of Spahis. The Turcos and Spahis were black troops commanded partly by French, partly by native officers. All the infantry were armed with the Lebel, a serviceable but somewhat antiquated type of magazine rifle. Each man, following the old French tradition, seems to have carried some 60lb., an enormous weight likely to tell severely under the exhausting conditions of modern fighting. Inclusive of the rations carried by the soldier, the army corps took with it eight days' supply, which was constantly replenished by the railways in the rear. The solution of the problem of the transport of supplies between the rail-heads and the armies had in the years preceding the war been greatly facilitated by the introduction of motor-lorries. It was found that a comparatively small number of these vehicles sufficed for the daily supply of an army corps, and rendered the massing of endless trains of horsed wagons in the rear of the troops unnecessary. The practical advantages of the new system need no illustration.

Thus far we have confined ourselves to the history of the construction and organization of the national army—a history which justified the proud boast of the French Minister of War in 1908: "*L'Armée Française, c'est la France.*" We must now turn to its training. Since 1870 the French Army had undergone a moral and intellectual revolution. At that melancholy period it is hardly too much to say that the methods of French leadership had tended to discard or depress all the grand traditions and qualities that had made the French Army the most famous of modern history. From top to bottom it was characterized by a tendency to exaggerate the defensive power of modern weapons, by a neglect of the theory and practice of the higher art of generalship, and by a tentative and piecemeal employment of all the arms; a combination of weaknesses which made resolute and effective action on the battlefield impossible, and rendered inoperative those moral factors to which the great warriors of the past had been accustomed to appeal. But during the years of recovery after the Franco-Prussian War, and especially during the first decade of the 20th century, there had arisen a generation which took a juster and more inspiring view of the special capacities of the French soldier. The adoption of a national system and the knowledge that upon its soundness would henceforth depend the existence of France as a great Power had placed at the command of the Ministry of War all that was best in the French people and the French mind. The result was



A GROUP OF ZOUAVES.



TRANSPORT OF A FRENCH HEAVY GUN.



FRENCH TROOPS MARCHING THROUGH PARIS.



HUY.



PLAN OF THE LILLE FORTRESSES.

the development of a national school of tactics and strategy, complete, coherent and well-fitted to the bold and ardent character of the troops. We do not propose in this place to discuss the French theory of strategy and grand tactics, or to compare it with that which prevailed in Germany. We shall deal with these all important subjects in a later section of this work, and for the present shall content ourselves with a brief description of French minor tactics.

These tactics were, in accordance with tradition and national temperament, dominated by the idea of the offensive; but they found their technical justification in the superior armament of the artillery and the special support which that arm was expected to afford to the infantry. This, in the opinion of the French, made it possible for them to assign to infantry fire a less important place in the preparatory stages of an action than was regarded as permissible in the German Army. The business of the infantry was to "conquer and win ground"; it had two means of action, "fire and forward movement";

"the only object of fire was to prepare for the resumption of a forward movement." Fire, that is, was to be a means, not an end; and the idea of a stationary defensive was not admitted. This theory of infantry action was intended to be realized by a system of manœuvre and distribution which, while it insisted on the use of mass at the decisive point, aimed at combining perfect elasticity and adaptability with careful economy of men and ammunition. With these objects in view, long range firing, except under special conditions and when carried out by picked shots, was discouraged; the distant zones were to be crossed as rapidly as possible, in close bodies when shelter was forthcoming, in small groups when it was not. The aim of the assailant was to get to within fixed-sight range before firing a shot, or nearer still if it was possible to do so: and for the same reason the deployment of the firing line was to be delayed until further advance without firing became impracticable. Only the troops necessary for the special purpose were to be deployed, the premature

expenditure of men in open formations being regarded as one of the most serious of faults. Once, however, a firing line had been constituted, it was to be rapidly reinforced, so that the fire should grow heavier and the line more dense the nearer the moment of the decisive attack approached. Fire was not to be continuous, but, as in the case of the artillery, was to be delivered in gusts, "sudden, brief, vicious and violent," according as a target presented itself. The preparation for the attack was to culminate in an overwhelming short range fire upon the whole of the defender's position, preventing the action of his reserves and weakening his fire sufficiently to allow of the advance of those of the assailant. The final assault was to be delivered in mass upon the decisive point; rapidity and the bayonet rather than fire effect being relied on in this last phase of an action. To the commander was left the selection of objectives, the distribution of the troops, and the choice of the time and place of the final attack.

This method of attack was well calculated to appeal to an ardent and intelligent infantry, and to judge from the manoeuvres it was well understood and executed. Its forms at least had historical sanction. They bore a distinct resemblance to the cumulative and tempestuous attack of the French infantry in the best days of Napoleon. The swarms and chains of *tirailleurs*, the quick and supple action of small columns, the final advance of heavier masses were all characteristic of the tactics of the Grande Armée. That the moral and physical qualities of the men were still the same was not doubted. "There are practically no limits," wrote *The Times* Military Correspondent in 1906, "to the demands which can be made upon the endurance of the French infantry by a leader who understands them, and whom they trust."

In support of this quick and daring infantry the French possessed what was generally regarded as the best artillery in Europe. The gun was a true quick-firer; its rapidity, thanks largely to the arrangement known as the independent line of sight,* astonished those who had seen it in practice. It was a powerful and accurate weapon throwing shrapnel or high-explosion shell of about 15lb.; its only weak points being that it was somewhat heavy and that the shield with which it was fitted was rather small. Its

technical superiority, combined with the greater handiness of the small battery, seemed amply to justify the belief of the French that four such guns were at least equal to six of the older German type. This belief was strengthened by their confidence in their tactical methods. The principles on which they were based were much the same as those which governed the action of the infantry. Here also economy in guns and ammunition was insisted on, while at the same time it was clearly understood that at critical moments the artillery should not hesitate to expose itself to heavy rifle fire, and should advance at all costs if the infantry required its support. Indirect fire was employed whenever possible, and no guns were sent into action unless the tactical situation demanded it. Long range fire, as in the case of the infantry, was unusual; 4,000 yards was rarely exceeded, the view of the authorities being that in Europe opportunities for long-distance shooting would rarely occur. Within that range various forms of fire were carefully practised, the object being not merely to hit a visible object, but to make defined zones of ground, whether invisible or not, untenable or impassable. Very accurate ranging, carried out slowly and followed by a deliberate fire, as in the case of the German artillery, was not a characteristic of the French gunner, all such elaborate procedures in his view being unsuited to the conditions of the battlefield. He regarded the *rafale*, that is, a sudden tempest of shell, lasting for a few seconds and sweeping a given area, as the more effective method of the two. The expenditure of ammunition involved by such a procedure was provided for by an exceptionally large supply, amounting, inclusive of that carried in the army corps park, to about 500 rounds per gun. Tactically the batteries accompanying an army corps in action were destined for separate action, the Corps Artillery (12 batteries) being intended to crush the opposing artillery, the divisional batteries (18) to shatter the hostile infantry. Naturally such a rule was made subject to infinitely varying conditions, but the definition of the two different tasks that would fall to the lot of artillery and the detailing of special units for the accomplishment of each, are typical of the French love of clearness and precision. It was generally agreed that the tactical combination of the artillery and infantry was exceptionally well managed, and that the science of the officers and the courage and endurance of the rank and file of the artillery left nothing to be desired.

In many respects the French cavalry of 1914

*The principle of this contrivance is that the work of regulating the elevation and the sighting is greatly quickened by being divided between two men instead of, as in older systems, being entrusted to one.



was the best France ever produced. The riding was good, the horses excellent, and if, according to British ideas, the French horsemen were too much inclined to trust to shock-action and too little to the rifle, no one doubted that they fully realized the importance of their strategic mission, and the truth of the old dicta that "Cavalry is made for action" and that "any decision is better than none." For them, also, the principle of economy of forces, late deployment, and strong reserves held good; and special attention was devoted to the business of scouting.

Everything in the case of the French, even more than in that of other armies, depended on the leadership, and doubts were sometimes expressed as to whether the French officer-corps, especially in its higher branches, would prove equal to its task. France did not possess, like Prussia, a military aristocracy, a special class set apart by tradition and by its social status for the task of leading armies. But the high standard maintained in all parts of the Army, to say nothing of the witness of history, seemed a sufficient answer to such

dubitations. The training appears to have been sound and thorough, at any rate as far as the officers of the first line were concerned. All candidates for commissioned rank, whether they passed through St. Cyr or the École Polytechnique (the Sandhurst and the Woolwich of France), or were promoted from the ranks, had first to serve as privates and had then to pass qualifying examinations. The final examination was competitive as well as comprehensive. Promotion from the rank of major and above it was entirely by selection, in the lower ranks it was decided partly by selection and partly by seniority. The officers of the Reserve and Territorial Army were not required to satisfy so high a technical standard; but all had to serve six months with the colours, and were liable to be called up for instruction every two years. The Staff of the Army, whose weakness largely contributed to the disasters of 1870, had immensely improved. All candidates for the Staff had to pass a competitive entrance examination at the École Supérieure de la Guerre, an institution corresponding to our Staff College, and after passing another at the termination of the course, went through



BELGIAN SCOUTS ON THE BATTLEFIELD OF WATERLOO.

two-years' probation on a staff, being attached during that period to other arms than their own. Thenceforward they spent their time, as did Prussian Staff officers, alternately with their unit and on staff duty, every step in promotion being preceded by two years' service with their unit. There is ample evidence to show that their work in all branches was done very efficiently and very rapidly. A striking, if not an unimpeachable, witness to their high qualities is to be found in the large amount of important literature produced during the last 20 or 30 years by individual officers. Maillard, Langlois, Bonnal, and Foch, not to mention others, were men whose historical and professional studies influenced thought in perhaps a greater degree than any other military writers of the age, and with hardly an exception were far superior to anything produced during the last 30 years in Germany. This literary activity was very characteristic of the renaissance of the French Army; and it is significant that the new school of writers, throwing aside the decadent ideas of the Second Empire, drew their inspiration not from Germany, but from that supreme repository of military instruction, the theory and practice of Napoleon. Nor did French military thinkers confine themselves to this work of tactical and strategical re-

construction. Hand in hand with it the scientific genius of the nation led the way in military invention. The French were the first to re-arm their artillery with a quick-firing gun; and in aviation they had strong claims to be considered the pioneers of the world. It was not merely its generous heart and fiery soul that made the army formidable in 1914; with these there also moved to battle that other tutelary spirit of France, her clear and splendid intelligence.

The question of the higher military command was one that for many years had exercised the minds of Frenchmen, and the solution offered by the decrees of 1911 was not entirely satisfactory. Down to that year the business of preparation for war was in the hands of the Conseil Supérieur de la Guerre, a body presided over by the Minister of War, which could be summoned at any time by the President of the Republic, and whose deliberations could on those occasions be attended by the Prime Minister and the Minister of Marine. It consisted generally of a committee of ten, and included as its Vice-President the Généralissime appointed to direct the principal group of the French armies in time of war, besides several officers destined for the command of separate armies. The defect of this system was that none of its members

were in close touch with the General Staff, or possessed any staff of their own corresponding with the importance of their missions. By the Presidential decree of 1911 these deficiencies were repaired. The chiefs of the new Army staffs were formed into a General Staff Committee under the Généralissime, to whom was accorded the title of Chef d'Etat Major-General. In time of war he was to be seconded by the Chef d'Etat Major de l'armée, who was intended to remain by the side of the Minister of War as the representative of the General Staff. At the same time the work of the General Staff was redistributed, the division dealing with preparation for war being placed under a Sous-Chef d'Etat Major, this officer being destined in time of war to act as chief of the staff of the Généralissime in the field. The Chef d'Etat Major-General (or future Généralissime) and the Chef d'Etat Major de l'armée (or the future adviser of the Minister in war time) were included among the members of the Conseil Supérieur. These arrangements made it possible for the Généralissime personally to direct the chiefs of the separate army staffs, and at the same time to share in the work of the Conseil Supérieur and exchange views with the destined Commanders of the Armies, a combination which, it was hoped, would smooth the way to a community of views and policy and would provide all the commanders with suitable staff organs of their own. The plan seemed a cumbrous one, but it was probably the only means by which the General Staff could be brought into line with the Conseil Supérieur, a matter which the military, constitutional and political significance of that body rendered essential to the wellbeing of the Army. The peculiarity of the relation of the Army and of the civil Government is brought out by the fact that the Minister insisted on his right to appoint Army commanders, and that the decree of 1911 actually restricted their tenure of these all important posts to a single year. The advantages possessed in these matters by a monarchical Government of the Prussian type over a Republican system are obvious and require no comment. A good deal of criticism both in and outside France was directed to considerations of this kind in the years before the war. It was said that the discipline and spirit of the Army was sapped by anti-militarist propaganda, that its *personnel* was of unequal quality, that the nation was rent by political divisions, that the successive governments were weak and unstable, and that the good of the Army, especially in the matter of the higher command, was constantly

sacrificed to intrigue. When war came it was at once evident that these views were far from being justified by the facts. In face of the national danger divisions disappeared to a degree that those who knew France best would a few weeks earlier have pronounced impossible. Anti-militarism became voiceless and was abandoned by its foremost advocates, including the lamented M. Jaurès, who was assassinated as a "traitor" after he had made it known that he renounced his ordinary views as inopportune and unpatriotic. How far General Joffre, a soldier of great Colonial distinction and wide experience of high command, and his subordinates would prove equal to their task, and how far the French Army itself would prove worthy of its old renown, the events of the campaign alone could show. But of the nature of the dominant motive none could doubt for a single instant. Frenchmen had but one object, the preservation of their beloved country; and but one thought, how best they might serve her interests.

A word must be said in conclusion as to the general plan of campaign. Its opening phase was bound to be of a defensive character, although the defence, concordantly with the national temperament and French military theory, was certain to take an active form. France's policy, and her earnest wish to avoid war if war could be avoided with honour, forbade the assumption of an aggressive attitude, even if her inferior numbers and the expected slowness of the Russian concentration had not rendered an offensive impossible from a military point of view. She could not expect her Ally seriously to affect the situation before the 20th day of mobilization, and for the first 30 days at least she could not count on any diminution of the hostile forces directed against herself. She knew that she would be obliged for a more or less indefinite period to devote her energies to repelling a superior enemy. It was consequently obvious that she would be compelled, at any rate until the enemy's main line of attack became certain, to submit in some measure to his initiative and so to distribute the bulk of her forces as to render them available to meet the impending blow wherever it might fall. Such a task is one of the hardest that war can demand of an army and a nation. There was a good deal to be said for the view, which was current in Germany, that from the technical as well as from the moral point of view the rôle of the defender had been made more difficult by modern conditions. According to this school



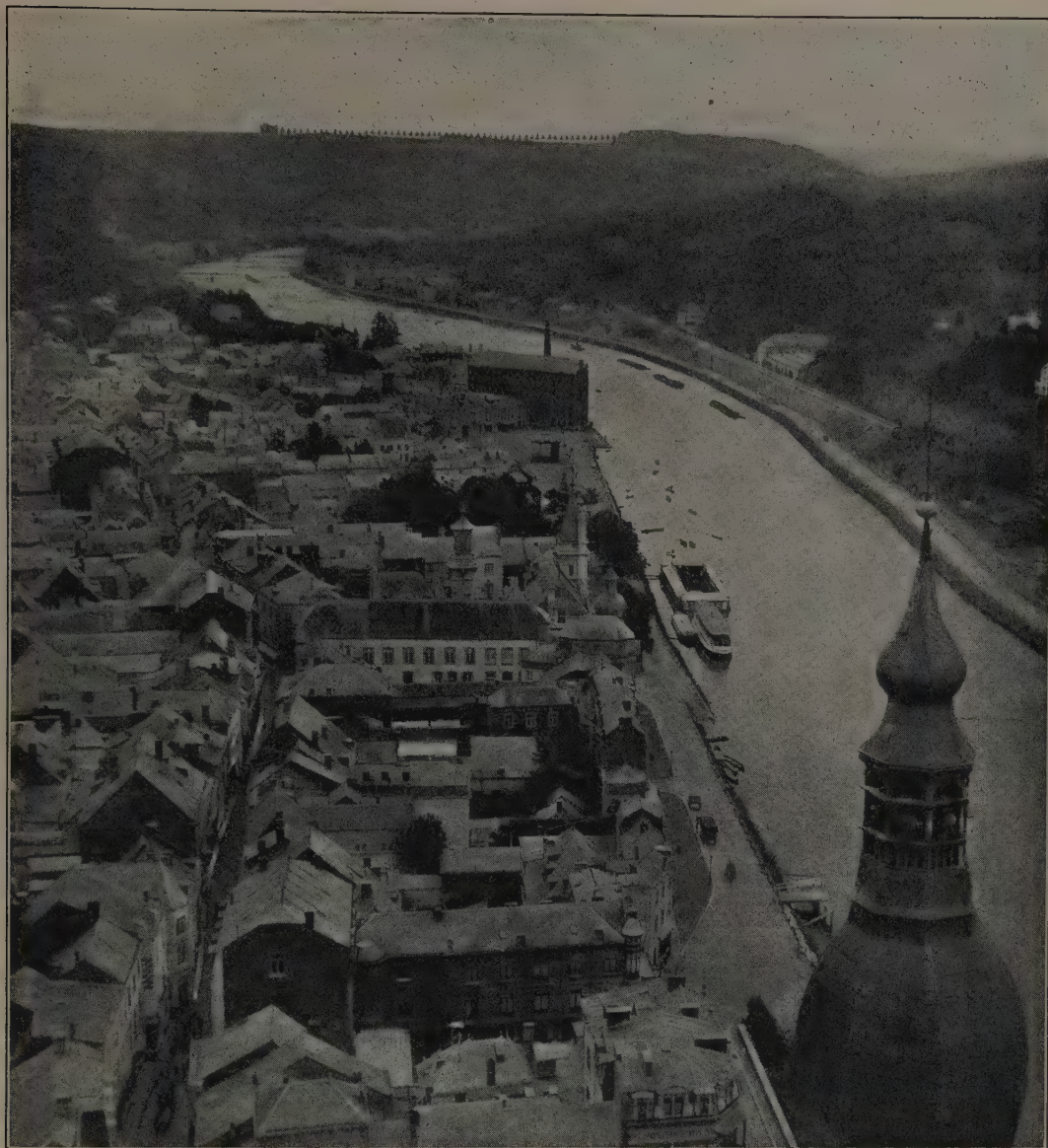
REPUBLICAN GUARDS IN PARIS.

Daily Mirror.

of thought, the view of Clausewitz that the defender would always have on his side the advantages of concealment and time, and that the assailant would always be exposed to the risk of discovery and of premature commitment, was less applicable than of old. The enormous size of modern armies, the immense breadth and depth of fronts, whether in the theatre of war or on the battlefield, and the consequent difficulty of accurate observation, were believed considerably to have reduced the advantages of that deferred form of action which the great Prussian author, writing of days when armies were comparatively small and visible, regarded as outweighing the moral advantages of the offensive. Most of the experience of 1870 and 1905 seemed to prove that the advantage had passed to the army which was powerful enough to take the offensive, to seize the initiative, to be first on the spot. On the other hand it was held in France that the counter-attack was a tremendously powerful weapon, perfectly capable of giving victory to the defenders, providing that there were forthcoming on the part of their commanders the knowledge, judgment, and resolution necessary to enable them to profit by the mistakes and the exhaustion of the assailant; and on the part of their people the intelligence and endurance necessary to enable them to

understand and to wait. Such were, in brief, the two strategic theories which circumstances and policy were destined to bring into opposition on the French frontiers.

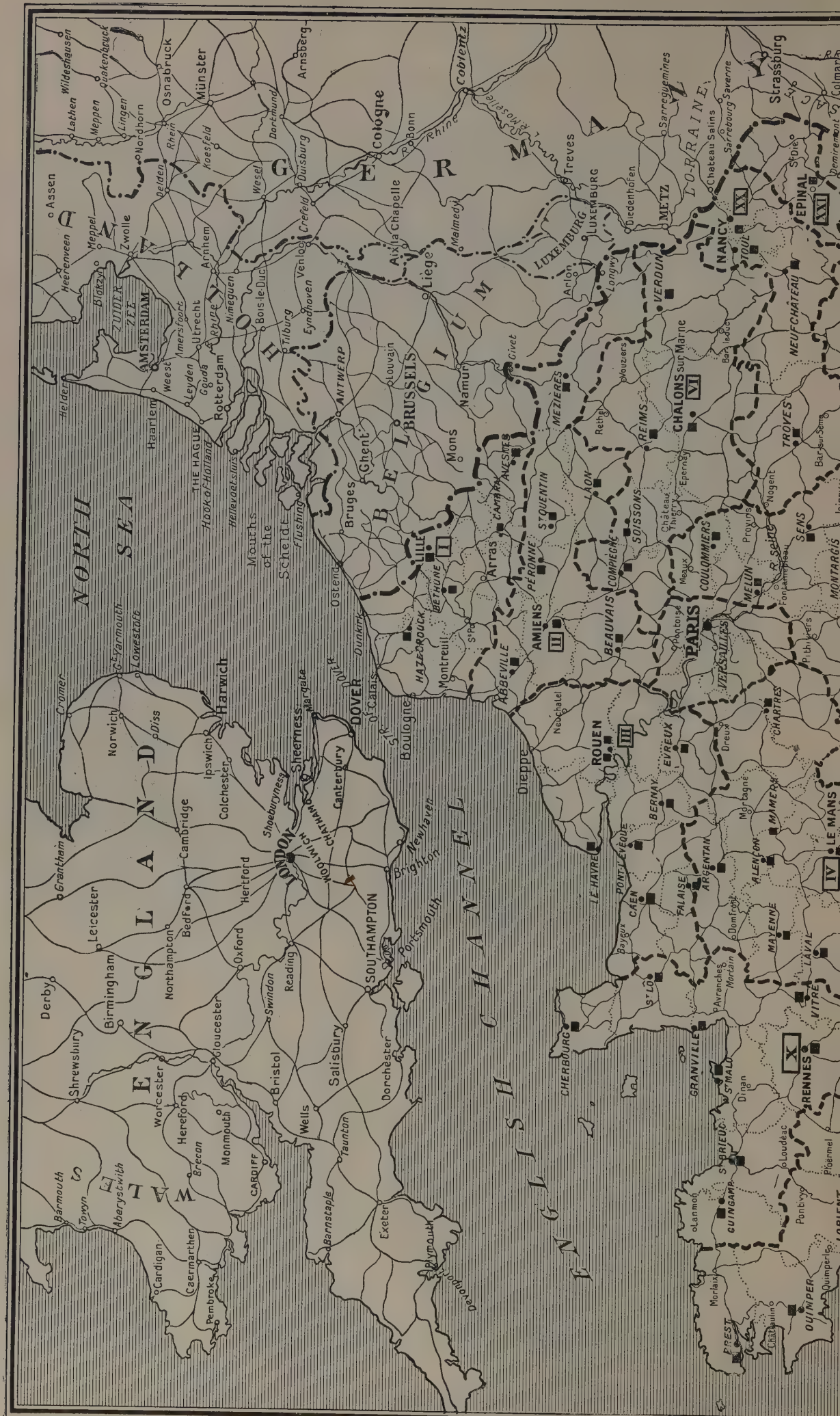
To find the means, in accordance with their strategic theory, of carrying on an effective defensive until the moment when a successful Russian advance would enable them to assume the offensive, was the task of the French commanders. Broadly speaking, the possible front of the main German concentration extended roughly from Aix-la-Chapelle, close to the meeting of the Dutch, German, and Belgian frontiers, to the point of the Vosges at Schirmeck, west of Strassburg, a breadth of about 180 miles: and whatever the probabilities it would be impossible to say, until the form of the concentration was fairly defined, exactly the point where the real effort would be made. All that could be safely predicted would be that once begun, and from whatever point, it would be pushed forward as fast as possible and as straight as possible upon Paris, that is to say that the main fighting was bound to take place somewhere within the triangle of Liège, Strassburg, and Paris, or close to its sides; an area which, from the French point of view and speaking purely geographically, would be covered by a preliminary concentration from



DINANT.

Maubeuge to Toul (a breadth of 150 miles). But, while admitting that it would be necessary to occupy in some degree the whole of this portion of the frontier, not to mention the spaces towards Lille on the one flank and Belfort on the other, anything like an equal distribution of force along it would obviously be a negation of all modern strategic teaching, a return to the cordon system condemned a century ago. The French concentration had to be fixed with a view to certain definite strategic eventualities. These were comparatively few. It was evident for years before the war that only two main alternatives, already referred to in Chapter 2, were open to Germany. It was certain, owing to the lie of French and German territory, the arrangement of the German railways, and the

distribution of the French fortress system southward and in rear of Epinal, that no large concentration would take place in Upper Alsace; but that, while leaving sufficient troops between Strassburg and the French frontier to retard any attempt at a French offensive from the south, the Germans had to choose between a grand offensive from Lorraine (Thionville-Metz-Schirmeck) or one from the front Metz-Aix-la-Chapelle, passing through the neutral territory of Belgium and Luxemburg. The first involved the storming of the French barrier forts between the fortresses of Verdun-Toul and Nancy, and could best be met by a concentration of the main French Army on that formidable front, and in the gaps on its flanks. Such a concentration, which





MAP OF FRANCE SHOWING THE TERRITORIAL DISTRIBUTIONS
OF THE FRENCH ARMY.

was rendered feasible by the strength of the covering troops, might be expected to enable the French Army to accept battle under very favourable conditions, for the front of the position would be enormously strong, and the fortresses would afford excellent pivots for out-flanking operations, or for counter attacks if the enemy endeavoured to turn them. The northern alternative was by some regarded as even more unfavourable to the German Army, on the ground that the passage through Belgium, and the capture of the Belgian fortresses, would occupy more time and cost more men than even the storming of the Verdun-Toul defences. In any case it was certain that even if the Belgian resistance was negligible, some days must elapse before the invading hosts could reach the French frontiers; while, if it was vigorous, it might even be possible for the French Army to join the Belgian Army and operate in conjunction with its Ally. Nor was it to be forgotten that the intervention of a British Army was more likely to take place in the event of a violation of Belgium than otherwise. From the French point of view, moreover, the

existence of neutral territory offered another important advantage. It was hardly likely that Germany would invade neutral territory unless she meant to make serious use of it. The news of the violation of Belgium, therefore, seemed calculated to set doubts at rest as to the zone which the Germans had chosen for their main effort, and therefore to indicate the direction in which the main French concentration would have to take place. Beyond this nothing was certain. The strength of the Belgian resistance, the stopping power of the fortresses, the intended lines of advance and the relative distribution of the German troops, as well as the total strength of the hostile force in the northern area could only be cleared up by the operations themselves. In one other important respect the French were lucky. The neutral attitude of Spain, and especially of Italy, freed them of all apprehensions on their south-eastern and southern frontiers. It was from the first possible for them to accumulate a considerably larger force of troops on their western frontier than could have been reckoned upon with any safety in the plans drawn up in time of peace.



CHAPTER VI.

THE ARMY AND THE FORTRESSES OF BELGIUM.

BELGIAN NEUTRALITY AS A POLITICAL ABSTRACTION AND ITS VIOLATION AS A MILITARY THEOREM—NEUTRALITY BECOMES A FOCUS OF PATRIOTISM—THE OLD ARMY A GOVERNMENTAL ARMY—THE NEW CITIZEN ARMY—THE CREATION OF THE FORTRESSES—BRIALMONT—THE PROBLEM OF LIEGE AND NAMUR—CONCRETE AND CUPOLA—THE ARMY IN 1863, 1899, AND 1902—THE NATIONAL ARMY ACTS OF 1909 AND 1913—STRENGTH IN 1914—THE GARDE CIVIQUE—ORGANIZATION OF THE ARMY ON MOBILIZATION—ARMAMENT AND EQUIPMENT—TYPICAL BRIALMONT FORTS—LATER DESIGNS—ANTWERP—LIÈGE AND NAMUR—CUPOLAS *versus* MODERN HOWITZERS.

WHEN Belgium was declared "perpetually neutral" it was quite as much in the interests of the Great Powers as in her own. A dangerous crisis over the fate of Limburg had just been passed, and both France and Prussia had formed the habit of studying the invasion of their respective countries by way of Belgium. In nearly all Moltke's memoranda of 1859-1869 on possible Franco-German wars the eventuality of a French attack from Belgium was taken into consideration. Since 1870, however, the question had been studied rather from the point of view of German attack upon France than *vice versa*, and it is safe to say that there was no problem of higher strategy that had been so freely discussed as that of the violation of Belgium's neutrality.

That Germany would not be restrained by the old Treaty of London if it suited her to attack France by way of Belgium was assumed on all sides as the basis of discussion. Rightly and naturally, the soldiers left the question of public law and policy to higher authority, and applied themselves to the consideration of the military conditions and consequences of an act which was obviously possible.

It must be said that, after the formation of the Dual Alliance and the consequent possibility of a war on two fronts for Germany,

military opinion was by no means agreed, either in principle or in detail, on the question of Germany's advantage in the matter. Some held that the time limit imposed upon Germany by Eastern necessities was too small to allow of the march through Belgium. Others considered that Germany's only object would be to pass troops through Southern Belgium only as rapidly as possible, and, deploying for the first time in France itself, to pick up new railway communications with Germany *via* Mézières and Luxemburg—in other words, to borrow part of Belgium for a week or so, to confront Europe with the *fait accompli*, and to pacify Belgium by prompt payment of the bill for damages. Still others held that Germany needed Belgium, south and north of the Meuse alike, both for the deployment and for the subsequent maintenance of her huge forces. In all these studies, as a matter of course, estimates were formed of the theoretical resistance of the Belgian Army to the invaders. One would assert that mobilization would require such-and-such a period, others would calculate in terms of "neutralizing" one, two, or three German army corps, and others imagined that Belgium would only save her face, and worked out their problem purely on the distances and times separating Aix-la-Chapelle from Mézières.



PALACE OF JUSTICE, BRUSSELS.



LOUVAIN.



THE KING OF THE BELGIANS.

[By the courtesy of the Belgian Relief Fund.]

These frigid calculations and estimates usually ignored the fact that since her independence Belgium had developed a distinct and remarkable national spirit. Yet in some respects this omission was natural enough, for it was not always that the Belgian authorities themselves realized, before the war, the bearing of patriotism—this new and real patriotism—on their military problem. One of the leading Belgian generals, for instance, defined the rôle of the Belgian Army as the detaining of such a proportion of the invader's force as would weaken him unduly on his main battlefield. On these cold premises, Belgium was not a neutral nation at all, but simply a State possessing a certain number of soldiers who could be thrown into the scale on this side or that, if her treaty rights were infringed. In fact, in the eyes of the Army, neutrality had become, in a sense, a badge of servitude.

Far different were the realities of the case. When Belgium faced the Germans in August, 1914, in defence of her neutrality, that privilege stood for nothing less, in the eyes of the people, than national independence. It was not a question of telling the Army to act as a make-weight, but a question of fighting the Germans to the bitter end. Belgian patriotism, frequently supposed to have been smothered in infancy by sectional, political, and industrial quarrels, was suddenly put to the supreme test and proved its existence.

At that moment the Regular Army had only recently come to be representative of that patriotism—to be an army, so to speak, of "principals." Up to 1913, or at least up to 1909, it had been conceived of rather as an army of "agents." The community itself had been too completely absorbed in its industrial development and its social questions to pay much heed to those of defence. It paid, and willingly paid, for its costly fortifications, just as the British public paid for its Navy. But its personal living connexion with the Army was small. The Government, on its part, was certainly somewhat unwilling to surrender to the principle of the armed nation, conceiving that it needed a force of agents of its own to support its authority in time of internal trouble.

At the time when the Belgian Army took shape, practically all the armies of Europe were organized on the principle of substitute-conscription. This principle produced, in practice, armies that were chiefly composed of volunteer professionals, since, on the one hand, the substitute who served on behalf of a conscript was really a volunteer with a bounty,

and on the other, the re-engagement of the time-expired substitute to serve for a second conscript gave the State a long-service army that it could fairly regard as its own property. Until after 1871, therefore, this form of army was as normal and natural as an army of soldiers of fortune in the 17th century or a mechanical army in the 18th century.

After 1871, however, the military problem of Belgium was by no means so simple. The most formidable military Power of Europe was to the east, and the second most formidable to the west, of her. At the same time, in Belgium itself both the popular view of the Army as a thing apart and the governmental objections to the arming of a people not easily governed still held good. Whereas in the case of the new French Army the new organization was a recombination of free atoms into which the war had disintegrated it, Belgium had undergone no such process of disintegration, and the reforms in her Army after the precautionary mobilization of that year were rather adjustments than reconstructions. In fact, for more than 30 years the Army remained, in kind and type, the same.

Belgium's answer to the new conditions created by 1870 was fortification. It so happened that she possessed in General Brialmont the greatest military engineer of the 19th century, and his genius and activity dominated the scheme of defence. As a young officer in the days of smooth-bore guns, he was, like his French contemporaries, a disciple of the orthodox "bastion" school of fortification, but presently he went over to the "polygonal" side of Carnot, Montalembert, and the Prussians. The enceinte of Antwerp, built to his designs in 1859, with its chicanes of all sorts—little rises of the parapet level to give fire upon this or that corner, little falls and recesses to protect it from enfilade, ingeniously-curved short flanks to search shy corners of the ditch, and so on—still exists to attest his skill and ingenuity in a lost cause. But with 1864 and 1870 came the rifled gun, and Brialmont was young enough to adapt his works to the new standard of resistance.

For some years after 1870 the question of the Army had precedence over the question of the forts. Strong and determined efforts were being made by the army officers (Brialmont amongst them) and the democrats, approaching the problem from widely different sides, to introduce the principle of the nation in arms, and it was with the *arrière pensée* of diverting attention from this side of the defence question that the Government took up the



LIÈGE.

fortification proposals of Colonel Deboer, Brialmont's right-hand man.

It was already provided in the defence scheme of 1859 that Antwerp should be the main stronghold of the kingdom, upon which all field operations—whether against French or against German intruders—should be based. Deboer, supported by his chief, proposed some barrier-forts (not, be it observed, a ring of forts) at Liège in 1879. Three years later Brialmont himself proposed more important works, both at Liège and at Namur, and with these proposals began three fresh sets of controversies. These were, first, the political disputes which made the expenditure of money on those new works a party question; secondly, the strategical question whether Namur and Liège should be made into important fortresses, a proposition to which many senior officers of the Belgian Army would not assent; and, thirdly, the technical military question of armour and concrete *versus* earth parapets, which was then at its height in all countries.*

Echoes of this last still lingered thirty years afterwards, when war put the Meuse fortresses to the test. The first was set at rest when, under the spell of Brialmont's personality, the Government decided to make Liège and Namur fortresses after his own heart. The second, or strategical, issue was fought and re-fought throughout the years of peace, the

most serious competing proposal being that of General Dejardin, who urged his countrymen to give up the too exposed Meuse line and to make Brussels itself a first-class fortress connected with Antwerp by barrier-forts on the Dyle and Scheldt.

The forts as actually constructed were of Brialmont's third period—strong simple masses of steel and concrete without chicanes or weaknesses, but of course very expensive. The course of operations in 1914 may be said on the whole to have justified the money sunk in these passive defences. What is more questionable, however, is their service to the general defence of Belgium. For beyond doubt Belgians were content to point with pride to these superb structures, the finest military engineering work of the age,* as British people were wont to enumerate the ships of their great Navy instead of tackling the problem of the *personnel*.

In 1863, on the eve of Prussia's challenge to the old armies of Austria and France, Belgium possessed a substitute-conscript "standing army" of 73,718 rank and file, which was raised as far as possible by voluntary enlistment, the ballot (with substitution) making good vacancies, as in other armies. The term of service for all alike was eight years, of which four were spent "on furlough," and thus roughly 38,000 men were permanently under arms, with a drilled reserve of 36,000 behind them.† The eleven fortresses that then existed

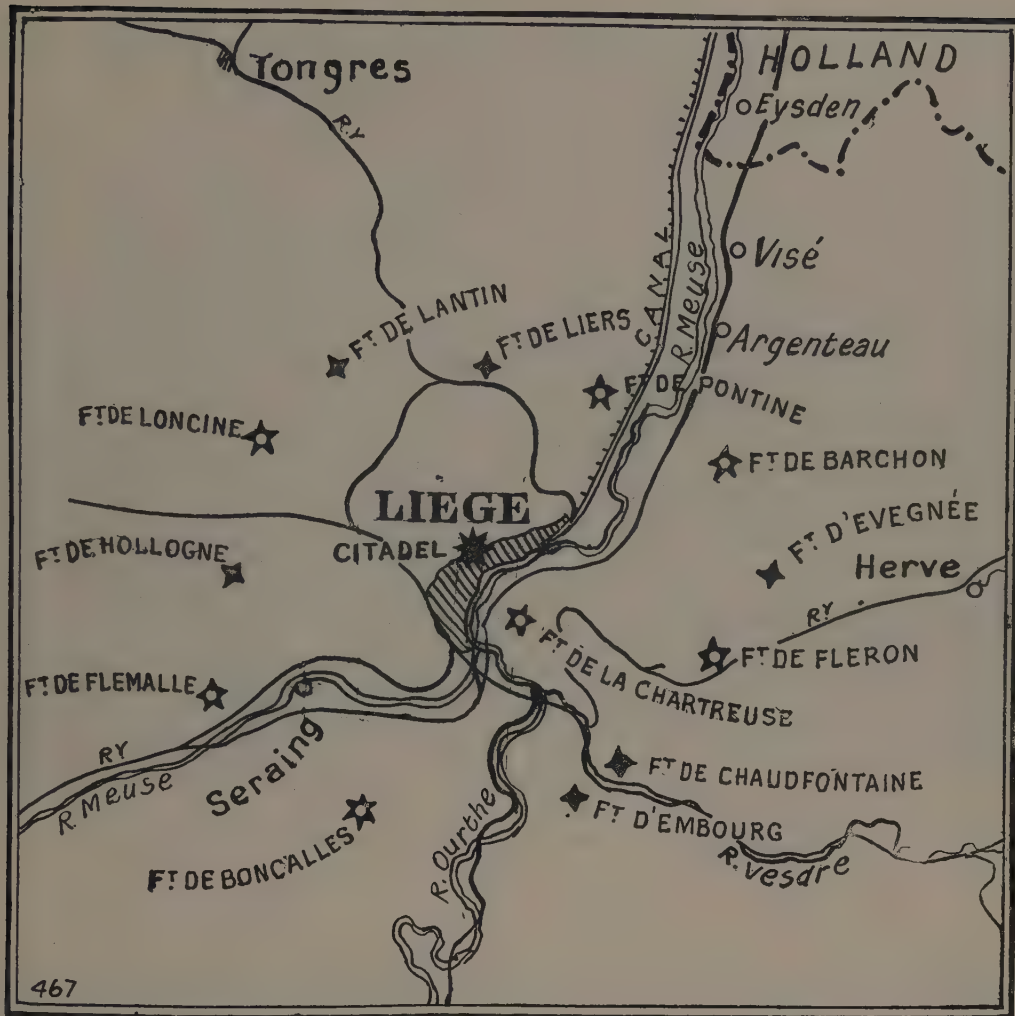
*Major G. S. Clarke (afterwards Lord Sydenham) and Major Louis Jackson (afterwards Assistant Director of Fortification) were amongst those who broke a lance with General Brialmont.

*Though rivalled perhaps by the same engineer's Bucharest works in Rumania.

†There was also a small naval force. To-day the only Government vessels are fast Channel steamers.



GENERAL LEMAN.



PLAN OF THE LIÈGE FORTRESSES.

absorbed practically the whole of this force. At that time the population was just under 5,000,000 souls.

In 1899, in a population of about 6,750,000, the peace strength was still only 43,000 rank and file, and substitution was still the ruling principle. But the Army had ceased to be the almost purely professional force that it had been, for enough non-substitute militiamen had been passed through the ranks into the reserve to give a total war strength (in the ten year-classes* liable) of about 130,000. On the other hand, Namur and Liège had, rightly or wrongly, been raised from the status of *forts d'arrêt* to that of fortresses, and their garrisons had been correspondingly enlarged, so that it was doubtful whether even as many as 80,000 men would be available for the free field army.

It was this last fact which more than any other consideration led to the passing of the

*Legally only eight were available, but the Government had emergency powers to call up two more.

Army Law of 1902. This Law certainly marked no progress towards the realization of a national militia. On the contrary, it made voluntary enlistment of professionals the acknowledged basis of the Army by increasing their emoluments and practically doubling the proportion of them on the peace establishment. But two reforms of great importance were effected. First, the liability period was extended to thirteen years, and, secondly, the framework of the Army was recast so as to give many cadres on a low peace establishment, to be filled on mobilization by the reservists, of whom thirteen-year classes were now available instead of eight or ten. Thanks to these two reforms, it was expected that on mobilization 180,000 men would be available in organized formations. Under this Law the strength of the eventual field army—after garrisons had been provided for—was supposed to be 100,000.

In a few years, however, it became evident that the system of relying upon increased



BELGIAN SOLDIERS AT BRUSSELS.



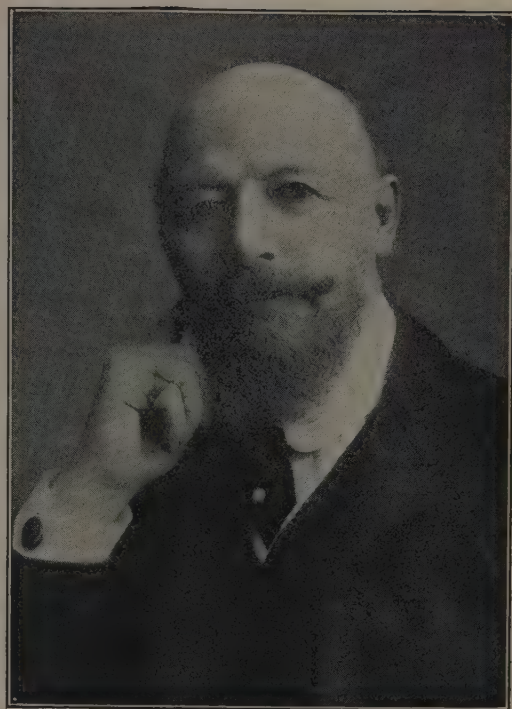
CIVIL GUARDS AT ANTWERP.

voluntary enlistment was a failure. The deficit was not indeed very alarming in itself, considered in relation either to the peace strength or to the ultimate mobilizable force, but it did indicate that no farther expansion was possible on the old lines of a governmental army. The reason for this was certainly not want of patriotism in the Belgian people, for national military service was in the creed of the most democratic political parties, as it had been in the creed of the old Radicals of the 1848 Revolutions. It was due partly to the fact that the Army was being kept away from the people by the Government, and still more to the absorption of the unemployed in the growing industries at home and of the most adventurous in the service of the Congo.*

Meanwhile the international outlook grew darker. The Russo-Japanese war, the first Morocco dispute, and the Austrian annexation of Bosnia followed one another swiftly. Every other year at least there was a threat of general European war. Every year witnessed some development in mobile siege artillery that was supposed to increase the military chances of a brusque attack on Brialmont's Meuse fortresses, hitherto supposed to be reducible only by sapping and mining. It was now not the fortresses, but the Army, that took first place in the scheme of national defence. There were moments in the years 1909-1914 when Liège and Namur could fairly have been said to be suffering from neglect—a thing that would have been inconceivable ten years before. Antwerp, on the other hand, resumed the place that it had held in the defence scheme of 1859. While Liège and Namur began to be looked upon again as simple barrier-groups, Antwerp, in its capacity as base of the field army, received an enormous outer ring of new forts, more modern in conception even than Brialmont's.†

Almost the last act of King Leopold II. was to give the Royal assent to the Army Bill of 1909. In that Bill substitution and the governmental army that it produced at last definitely gave way to the principle of the national army. The new scheme was in many respects tentative and imperfect, and in fact had to be thoroughly revised in 1913. But the first and hardest step was taken. The nation was armed, and neutrality as a politico-military abstraction rapidly gave way to "independence" as a popular creed.

By limiting substitution to the one case of brothers the character of the Army was changed



COUNT DE LALAING,
the Belgian Minister in London.

[Bassano.]

from that of a contract force rendering services professionally to that of a duty force serving as members of society. The peace strength (42,800) remained at much the same figure as before, as also did the periods of colour service required of the militiamen. But the absence of a high proportion of long-service men enabled the annual intake of recruits—which is what determines the war strength of an army—to be increased from a nominal 13,000 to a real 17,500. The low-establishment cadres of the previous organization were thus filled up to the ordinary standard of active units in peace. At the same time the liability period was reduced by one year, so that a war strength of 210,000 rank and file could be obtained with certainty so long as the *volontaires de carrière*—i.e., the enlisted professionals—still remained in the Army in great numbers. Given this standard of strength, it was clearly unnecessary to apply the principle of universal service rigorously throughout a population of over 7,000,000.* Accordingly, liability was restricted to one son in each family, and, as above mentioned, one brother could join as substitute for another.

But the question was soon asked—Was this war strength itself adequate? Having regard to the immense development of the new entrenched camp of Antwerp, not less than 130,000

*Moreover, the drilled volunteer battalions of the Civic Guard (see below) doubtless absorbed some promising material.

†These forts were completed and fit to stand a siege, according to published German reports, in November, 1913.

*The maximum annual contingent on such a population would have been about 67,000, of whom some 33,000 or 34,000 would be fit for service.

of the 210,000 would be required for fortress duties, and the field army, instead of being increased, would remain stationary at the figure of 80,000.*

The second Morocco crisis of 1911, and the Italian and Balkan wars of 1911-12, with the consequent increases in the strength and war-readiness of the French and German Armies, answered the question promptly and decisively; and in January, 1913, a new Army scheme was brought forward by the Government. It became law in due course and had been about a year and a half in operation when the Great War broke out.

Under this scheme the standard of strength on mobilization was to be as follows (rank and file only):—

Field army	150,000
Antwerp	90,000
Liège	22,500
Namur	17,500
Reserves in dépôts (for drafts)	60,000
	<hr/>
	340,000

To realize this standard, liability to service was made in fact, as it already was in theory, universal. But certain exemptions were, as usual, granted, and allowing for these and for the physically unfit it was calculated that no more than 49 per cent. of the gross annual contingent would be available for service. The thirteen years' term of liability to serve on mobilization was reintroduced. Had events permitted the scheme to grow to maturity, the above numbers would have been realized with certainty, since thirteen classes each of 33,000 compulsory service men and 2,000 volunteers would have given a total of 455,000. As it was, however, only two classes had become available under the new scheme, and the resources of the country in *trained* men (not counting the Civic Guard) were, roughly:—

The 1913 class	30,000
Four classes (1909-12), at 20,000	80,000
Eight classes (1901-8), at 13,300	106,400
Volunteers (steadily decreasing from 1901, but averaged at about 2,500)	34,600
	<hr/>
	251,000
Plus the recruit class of 1914	33,000
Plus professional cadres ..	12,000
	<hr/>
Gross	296,000

* This figure, however, would now be a minimum and not a maximum, as it would have proved in a mobilization under the 1902 scheme.

Deduct 15 per cent. as unfit and missing on mobilization, and the net strength becomes	261,000
Add gendarmerie not included in the classes above, about	2,000
	<hr/>
Total available	263,000

If therefore, as foreseen, Antwerp, Namur, and Liège were to absorb 130,000 men of the active army and its reserves, only 133,000 at the outside would be available for the field army, even assuming that the new recruits of the 1914 contingent could by judicious distribution be safely incorporated in the active ranks, and the hoped-for drafting reserve of 60,000 men at the dépôts would be non-existent. If, therefore, the war establishment of the field army (150,000) was to be attained, it was necessary to economize on the fortress garrisons, and to that end to call upon the Civic Guard to bear a greater share in the defence than had been contemplated.

This call was the final test of the reality of Belgian patriotism.

The Garde Civique was one of the few survivors of the National Guards of the days when the citizen-in-arms stood for liberty against Governmental autocracy; in its virtues and its defects, therefore, it was the true descendant of the citizen bands who had risen against the Dutch in the War of Independence, and of the National Guards that in France, Germany, and Italy played so great a part in the revolutionary movements of 1830-48. As with all formations of this kind, its military efficacy was in proportion simply to its passion. That it could not give full effect to its passion for want of specifically military training may freely be admitted—the point is that all the value that it possessed was derived from the cause in which it was called upon to fight.

On any conception of Belgian defence as a Governmental act, therefore, little reliance was or could be placed upon the Garde Civique; and, moreover, by its very nature it was rather a counterpoise than an auxiliary to the Army, which, both as a regular force and a Governmental force, looked down upon the *bourgeois* amateur. But, as we have seen, the conception of neutrality as an affair of policy involving the use of an army as the agent of policy had given way to the conception of a national independence defended by the stout hearts of the citizens themselves. In making this new patriotism possible the Garde Civique had worthily played its part, as it had done also in assisting to maintain public order during industrial disputes. With the bringing together

of the Army and the nation that followed the Army Acts of 1909 and 1913, its part seemed to be over, and gradually, as the Army absorbed the citizens, it was intended to die out.

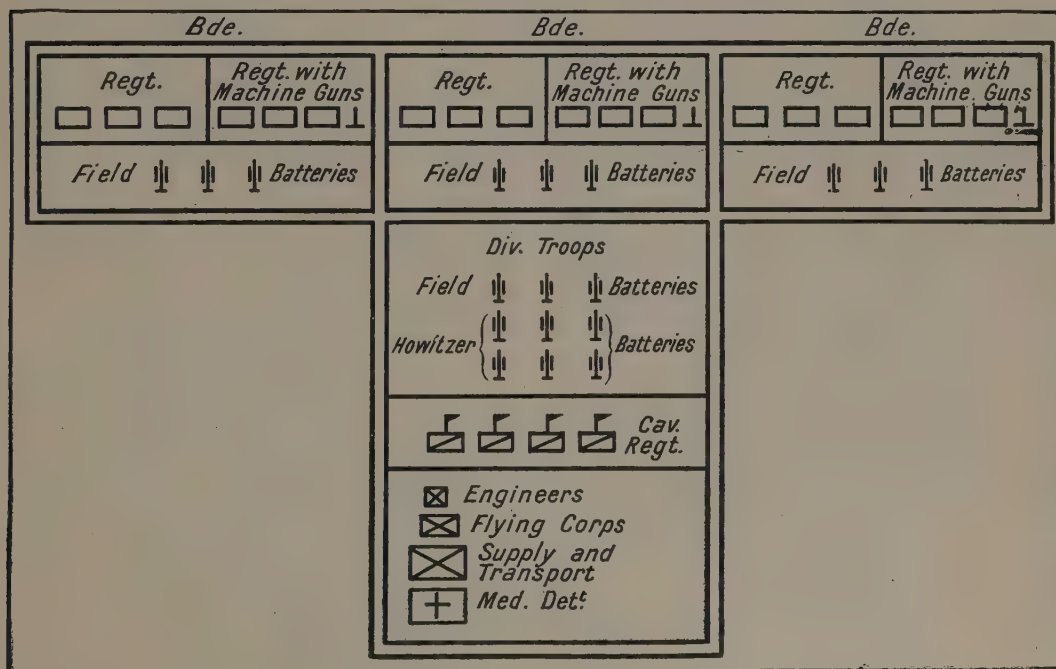
But in August, 1914, this absorption had no more than begun, and the Garde Civique still existed in the old form and the old numbers. To it belonged in theory every able-bodied man who was not in the line or the reserve of the regular forces, between the ages of twenty-one and thirty-two; and behind it was its reserve of men of thirty-three to fifty, whose sole peace liability was to report themselves three times a year. Taking 35,000 as the total able-bodied contingent, and deducting 15,000 as enrolled in the Army, we find the nominal strength of the 1st Ban Garde Civique to be $13 \times 20,000$, or 260,000. Actually it was far below that figure, for only in the cities and towns did it possess any effective organization, and it may be assumed that not more than 90,000 Gardes Civiques were available for duty. These men had been present at ten drills a year, but (as was to be expected from their origin and principle) they were under the Home and not the War Department, and received little if any assistance, either in training or in organization, from the active army. However, in modern Belgium, as in the France of Louis Philippe, the existence of the general liability had given the enthusiasts the opportunity of forming volunteer corps, and these like the British Volunteers, met habitually for drill and social purposes,

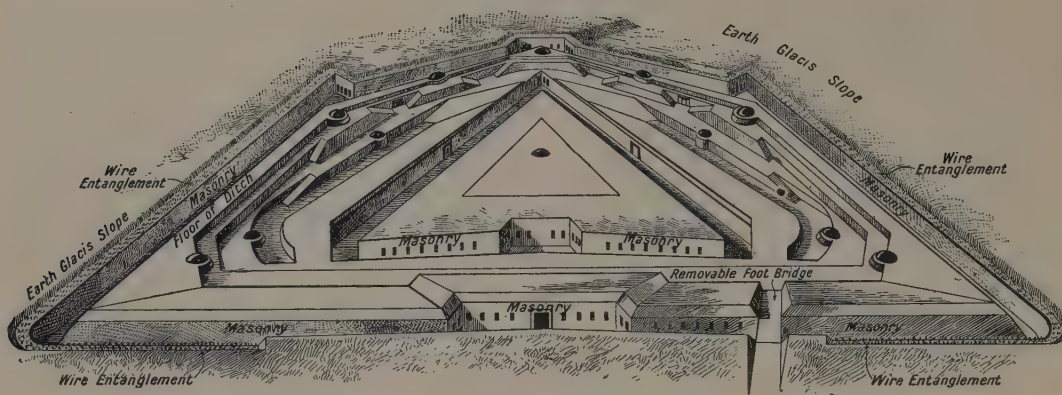
and, with little direct assistance from above, attained a fair standard of military efficiency. This category included between 37,000 and 40,000 of the 90,000 men in the organized force. How well these men did their duty by the side of the regulars the defence of Liège attests. If as a national guard they were moribund, as part of the new National Army that had not had time to grow, they bore their full share of the defence of the kingdom, and this in spite of the brutality of the invaders, who chose to regard them as non-military irregulars, to be shot when caught—a view which might equally well be taken of the police of Great Britain, or even of the King's African regiments under the Colonial Office. For a moment, when overwhelmed and unsupported by the Allies, the Belgian Government dismissed the Civic Guard, in order to save it from this treatment, but it was soon re-armed and re-employed.

The aid of the Garde Civique, then, being justly reckoned upon for the fortresses, it was possible on mobilization to constitute the field army more or less in accordance with the normal scheme.

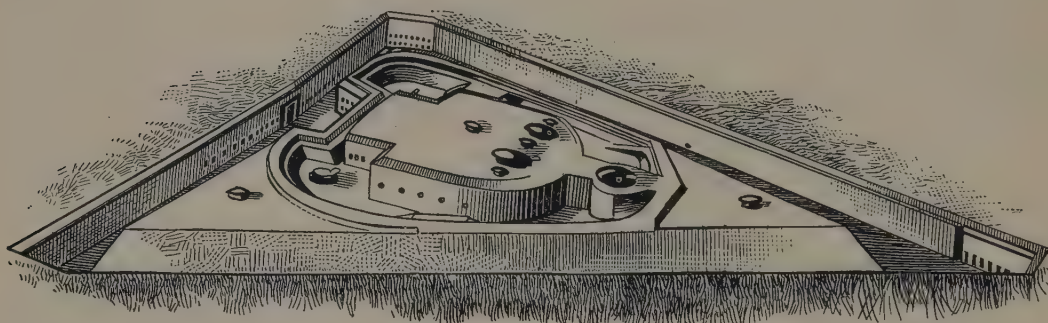
This provided for six divisions and a cavalry division, besides the regular fortress troops. The division consisted of staff and three "mixed brigades"; each was composed of two three-battalion regiments of infantry and a group of three four-gun field batteries, plus the divisional artillery (three groups), divisional cavalry (one regiment) and special troops.

The order of battle of the division is shown in the accompanying diagram:—





PENTAGONAL BRIALMONT FORT.



TRIANGULAR BRIALMONT FORT.

(For description see pages 16 & 17.)

A very interesting feature of this organization, which is almost peculiar to the Belgian Army, is the mixed brigade of six battalions and three batteries. Such an organization, when found in other armies, is usually only for detachments stationed in outlying frontier districts (e.g., the Austro-Montenegrin and the Franco-Italian frontiers). In Belgium, on the contrary, it was not detachments, but the parts of the main army itself that were so organized. The needs of modern tactics had produced the idea of the "tactical group" of all arms within the division in the French and the British Armies, but in these armies the grouping was only a temporary *ad hoc* arrangement, whereas in Belgium it was the basis of the regular organization.

The cavalry division consisted of three brigades, each of two four-squadron regiments, a mobilized gendarmerie regiment in addition, and three batteries of horse artillery; a cyclist battalion, a cyclist engineer detachment on bicycles and a motor-ambulance section also figured in the organization.

The establishment-strength of the division was roughly 22,000 combatants, which meant

that the so-called division was in reality a small army corps. The cavalry division was about 5,000 strong in combatants.

This force of six divisions,* a cavalry division,† with the 13th and 14th mobile brigades at Namur and Liège, was formed on mobilization by the expansion of each of the 20 infantry regiments of three battalions, or about 1,650 men, into a six-battalion brigade of about 7,000. This meant a four-fold expansion for the regular field army alone, without counting the fortress garrisons, but the Balkan Wars had already shown that for a thoroughly national war it was safe to multiply even by eight. The lieutenant-colonels and the second captains of the active regiments, with a proportion of junior officers serving as supernumeraries in peace, commanded the regiment and companies newly formed on mobilization.‡

The cavalry and artillery were maintained on a high establishment in peace, the field artillery being only doubled and the cavalry scarcely

*1st Ghent, 2nd Antwerp, 3rd Liège, 4th Namur, 5th Mons, 6th Brussels. Instead of the two howitzer groups of divisional artillery, the 6th division had one of horse artillery and one of heavy howitzers.

†Brussels.

‡The regiments at Namur and Liège formed fortress battalions in addition.



increased at all, by the intake of reservists (men and horses) on mobilization.*

Of the fortress troops, both artillery and engineer, details need not be given. It will suffice to say that the formations in these branches were numerous, as one would expect from the preponderant part played by the three fortresses in the defence scheme.

Before we deal with these fortresses in any detail, however, we may set forth briefly the characteristic points of the armament, equipment, and uniform of the Belgian Army. The field artillery weapon was a Krupp quick-firer of

1905,* with single long running-up spring and panorama sight, but without "independent line of sight"—in a word, a typical equipment of its date, inferior to the French, Russian, and British models, but superior to the German. At the outbreak of war no definite decision had been made as to the pattern of quick-firing field howitzer to be adopted, and the old breech-loading weapons were taken into the field. The rifle, pattern 1889, a Mauser, of .30lin. calibre, was also a typical weapon, differing only in points of detail from the rifle of many other armies.

*The periods of militiamen's service with the colours were:—Infantry, Heavy Artillery, and Pioneers, 15 months; Cavalry and Horse Artillery, 24 months; Field Artillery and Train, 21 months.

*Some of the guns were made at Essen, and others at the ordnance works of Cockerill, at Seraing, Liège.



NAMUR.

The machine-guns were of three types—a Hotchkiss, used in the fortresses, a Maxim of much the same pattern and weights as those of other armies, and a new type named the “Berthier,” a light automatic weapon weighing only 18lb. This was frequently, if not always, mounted (for transport only) on a light two-wheeled carriage drawn by dogs. The cavalry machine guns had pack transport. When in action all field machine guns were tripod-mounted.

On the whole, then, as regards weapons Belgium was on a level with her contemporaries, but in no way ahead of them, for even the light machine-gun had been introduced into the Danish, Russian, and other armies.

The same can hardly be said of the uniforms and the infantry equipment. The Belgian linesmen went into action against the grey Germans wearing the blue tunic or greatcoat, the heavy knapsack, and the white buff accoutrements of peace time. Trials had recently been made of a khaki field uniform, but none such had been adopted.

As we have already seen, the older fortifications of Antwerp represent Brialmont’s youth, and those of Liège and Namur, and some of the newer Antwerp forts, his maturity, while the newer Antwerp works are more modern in design than even Brialmont’s final plans. The first, constructed before the days of the siege howitzer shell, scarcely concern us. But the second and third call for more detailed description, and for

that purpose we take two of Brialmont’s designs—one for a large fort with an internal keep, and one for a “fortin” or smaller work. The ring fortresses of Namur and Liège were simply combinations of these forts and “fortins,” varied slightly in detail to suit the sites.

The larger fort shown is five-sided, and surrounded by a deep ditch, of which the counter-scarp is a masonry wall, while the earthen escarp is simply the prolongation of the exterior slope of the parapet. Behind the counter-scarp wall and running along almost its whole length is a vaulted gallery, which at the angles of the ditch is pierced for machine-guns and rifles, so as to sweep the floor of the ditch at the moment of assault. From this gallery small galleries run outwards and downwards at right angles to enable the defenders to counter-attack the besiegers’ mining operations, and other galleries communicate with the fort below the floor of the ditch. This counter-scarp gallery, therefore, is the main defence of the fort during the final stages of the besiegers’ advance, both against his assault overground across the ditch, and against his mining operations underground, and it is itself practically secure against any form of attack except slow and systematic mining—unless, indeed, artillery of quite unforeseen power were to be brought against it, in which case it would succumb like any other works.

In the rear (or “gorge”) of the fort the escarp is of masonry, and galleried and pierced



BELGIAN SOLDIERS IN BRUSSELS.

so as to command the floor of the ditch. The parapet of the fort is a plain infantry breast-work, with steel gun-cupolas bedded in concrete at intervals.

Within this five-sided work and separated from it by an inner ditch is a triangular mass of concrete, galleried and pierced on its rear side to sweep the rear of the inner ditch* and on all sides so as to give fire upwards upon the interior of the outer fort, and so to prevent an enemy who has stormed the front part from establishing himself solidly in the interior and to keep open a way for reinforcements by way of the rear side or "gorge." Access from the outer fort to the inner ditch is obtained through a tunnel from a well or sunk "area,"† all parts of which are kept under fire by carefully sloping the earth on the inner side, glacis-fashion, so as to bring it under the observation of a cupola in the centre of the triangular keep.

*The counter-scarp galleries at the apex provide for ditch defence on the front faces.

†This sunk "area" also assists in limiting the space open to the assailant after penetrating the outer fort.

The smaller fort is a triangular work of simpler trace, and without provision for interior defence. At the angles of the triangle are small cupolas for light quick-firing guns. The infantry parapet is traced somewhat in the shape of a heart, and in the hollow of this heart is a solid central mass of concrete, on which are the shelters and gun-cupolas. The mortar-cupolas emerge from the floor of the hollow, outside the central mass. Ditch defence is provided for the front faces by counter-scarp galleries, and for the rear face by the trace and loopholes of the escarp gallery, as in the case of the larger fort.

By the later engineers, though cupolas and concrete were used freely, the upright escarps and deep ditches and general costly massiveness of Brialmont's works were replaced, in Belgium, as in other countries, by glacis-ditches; that is, the parapet slope was continued outwards and downwards until the proper depth was reached for the building up of a steep, forbidding counter-scarp. Entanglements and steel fences were fixed on this slope as a barrier to sudden assault. The gun-cupolas were placed much as they were in Brialmont's designs, but in



BELGIAN TROOPS.

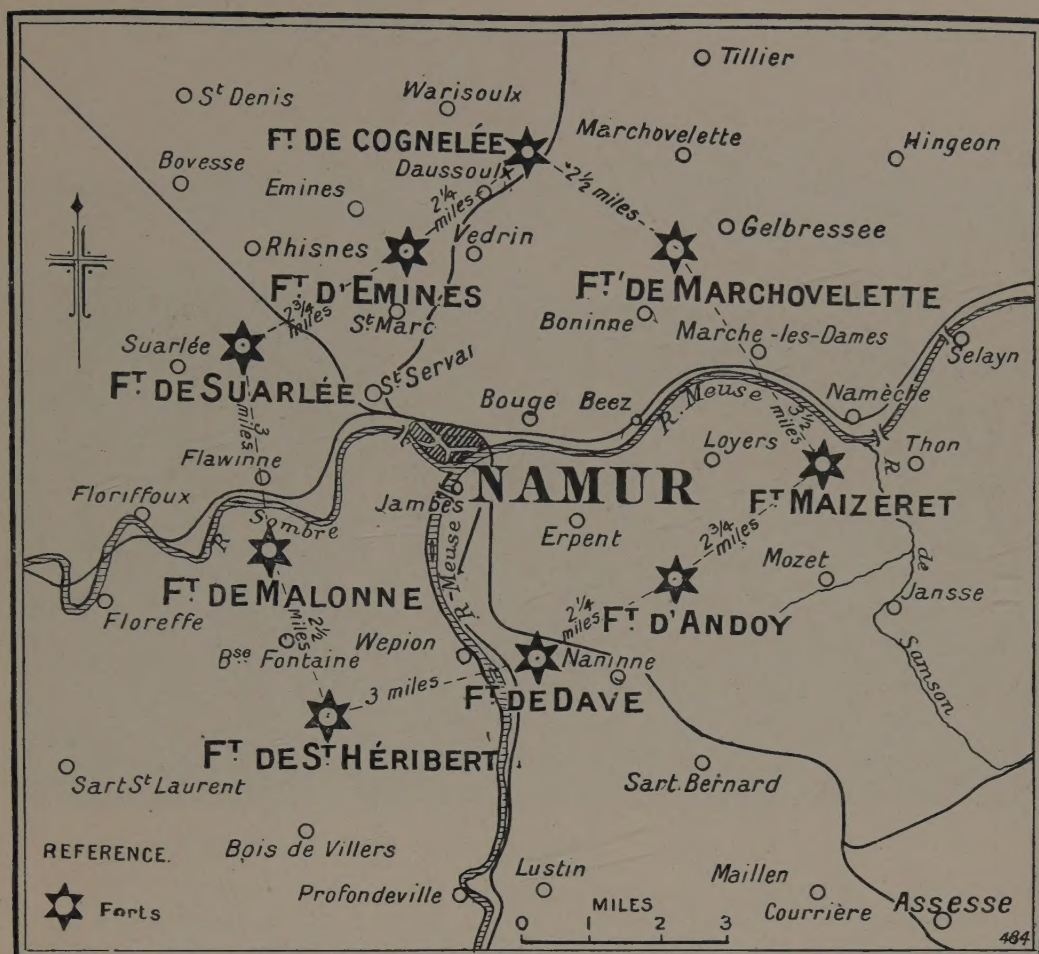
general the earthen slopes were longer and flatter.

The Antwerp fortifications were (1) the 1859 *enceinte*, already alluded to as a fine example of the old "polygonal" fortification, and still possessing military value against all forms of attack except a regular siege, although, of course, powerless to protect the town against bombardment; (2) the "old" forts, a partial ring of self-contained works at regular intervals of 2,200 yards, and at an average distance of 3,500 yards from the *enceinte*; these were built at the same time as the *enceinte* and at first extended only from the river at Hoboken, above the city, to the railway running out of Antwerp eastward, but after 1869 were reinforced by Fort Merxem, north of the city, and Forts Cruybeke and Zwyndrecht to the west of the Scheldt, to which was presently added the combined fort and coast-battery, Sainte-Marie, on the lower Scheldt; (3) the first instalment of the "new" forts, built in 1879 and the following years by Brialmont; these marked the most important points of an immense defended area, Rupelmonde—Waelhem near Malines—Lierre—Schooten—Berendrecht; (4) the second instalment of the "new forts," which were completed in 1913, and filled up the wide intervals left unguarded in the preliminary scheme; (5) the defences commanding the ship-channel, of which the water battery of Fort

Sainte Marie with its long row of casemate guns at the water level behind heavy masses of curved armour was perhaps the most effective; (6) the inundated areas. It is to be noted that the old forts of class (2) received new cupolas and additional concrete at the same time as the works of class (4) were built.

As the base of the field army and the final keep of the Kingdom, Antwerp had generally been well cared for. With Liège and Namur, however, matters were different. They were intended originally as barrier-fortresses, to be held only for a few days, and many authorities declared that any further development of them as fortresses in the ordinary sense was undesirable in the general interests of the defence. Only the strong will and personality of Brialmont made them what they were, for good and evil, and the war gave no final answer to the question, since the resistance of Liège surprised those who regarded it as a mere barrier position while the swift overwhelming of Namur was equally startling to those who looked upon it as a fortress.

Liège possessed a ring of six forts and six "fortins," Namur a ring of four forts and five "fortins" of the two kinds described above, or analogous types. The armaments were the same in all cases—two 6in., four 4.7in., two 8in. mortars, four light quickfirers for the forts, two 6in., two 4.7in., one (or two) 8in. mortars,



THE DEFENCES OF NAMUR.

and three light quickfirers for the "fortins." Including separately emplaced guns, Liège had 400 and Namur 350 pieces.

Searchlights and the necessary stores and supplies for resisting a siege were reported as ready and complete in the winter of 1913, even the line enlargement being in position.

But what was true for the forts individually was not altogether true for the fort ring as a whole, for bomb-proof infantry redoubts would have guarded the intervals of the forts far more effectually than the mere field defences that were hastily thrown up after mobilization. The uses and design of such redoubts were well known to all European engineers, and it can only be supposed that no definite decision to treat Liège and Namur as fortresses had ever been reached.

One other consideration must be mentioned. At the time when the cupolas were constructed and the depth of the concrete determined, the typical siege gun was the

6-inch howitzer. But artillery had made great progress since the siege of Port Arthur had afforded definite data as to the numbers and kinds of guns required, and 8-inch and even 11-inch howitzers could now be mounted on wheeled carriages and brought into action without waiting to make concrete beds for them.

The resisting power of the cupolas was therefore, in August, 1914, somewhat doubtful, and this doubt cannot but have intensified in the minds of the Belgian staff their more general doubts as to the wisdom of treating the Meuse places as fortresses at all. These doubts, indeed, had been partially allayed by the manœuvres of 1913, in which the "Red" Army attacked Namur from the East and was repulsed, even though the umpires allowed the attack to smother the cupolas in a few hours. But manœuvres and realities may differ, and until the heavier shell was actually pitted against the cupola in war, indecision was bound to



ANTWERP.

remain. Had the new army scheme been complete in August, 1914, a clear policy one way or the other as to the Meuse forts would *ipso facto* have been decided upon. As it was, in this as in other matters of defence, Belgium was caught at a moment of transition.



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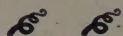
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